# APPENDIX F CEPD Directive Memorandum

CECW-CE (1110)

## MEMORANDUM FOR MAJOR SUBORDINATE COMMANDS

SUBJECT: Implementation of Findings from the Interagency Performance Evaluation Task Force for Evaluating Vertical Datums and Subsidence/Sea Level Rise Impacts on Flood Control, Shore Protection, Hurricane Protection, and Navigation Projects

1. The purpose of this memorandum is to issue the second of a series of directives to implement lessons learned from the recent findings of the Interagency Performance Evaluation Task Force (IPET) on Hurricane Katrina. Findings of errors of one to three feet in some of the elevations used in design, construction, maintenance, and evaluation of hurricane and flood control structures in New Orleans highlighted the need to ensure that our flood control and navigation projects across the country are referenced to the proper vertical datums to correctly compensate for subsidence/sea level rise. Furthermore we need to confirm that these vertical datums are adequately referenced to nationwide spatial reference systems used by other Federal and local agencies responsible for flood forecasting, hurricane surge and inundation modeling, navigation, flood insurance rate maps, hurricane evacuation route planning, coastal boundary delineation, bathymetric mapping, and topographic mapping. We have a professional and ethical obligation to periodically reassess our projects to ensure that they are correctly designed, constructed, and maintained on the proper vertical datums to compensate for subsidence/sea level rise in order to provide appropriate flood and hurricane protection and navigation depths.

## 2. My direction to you is as follows:

a. Every District shall conduct a vertical datum review of all their federally authorized and constructed hurricane protection, shore protection, flood control, and navigation projects, and evaluate them against the technical criteria provided in the attached document. The purpose of this review is to (1) inventory the vertical datums used on all flood control, hurricane protection and navigation projects, (2) identify deficiencies in those datums that require corrections, (3) transition to the correct datums, and (4) implement appropriate project changes, e.g, increase levee heights or reduce dredging. Where project changes are significant, public notices shall be given. Where additional funds are required to implement project changes, programming actions should be initiated as soon as possible.

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- b. Districts shall appoint a lead vertical datum coordinator to oversee the review of each project and approve/certify the evaluation report. This individual shall have a solid technical background in surveying and geodesy, and shall have completed a mandatory training course developed by ERDC, Topographic Engineering Center, specifically for this purpose. The three day training course will be held in Alexandria, VA, in March 2007. Please send name of District vertical datum coordinator to Jim Garster, ERDC TEC, by 15 December 2006.
- c. Once training has been completed, District Datum Coordinators will report the status of vertical datums for all Flood Control, Shore Protection, Hurricane Protection and Navigation projects through a web based survey tool. The survey tool will capture information outlined in Section seven of the Interim Guidance Document (Attached). Once all District projects status has been assessed and reported, the District Commander will send a final report to the Chief of Engineering and Construction. Detailed information on filling out the survey and report generation will be explained at the training course.
- d. Districts will fund the vertical datum review of flood control and hurricane protection projects operated and maintained by non-federal sponsors within the Inspection of Completed Works (ICW) account. Review of Corps-maintained projects, including navigation projects, will be funded from existing O&M accounts associated with those projects.
- 3. The attached guidance is intended to cover the requirements for an initial assessment and reporting. More permanent guidance will include a periodic review of vertical datums in various inspection programs of completed civil works projects. Permanent guidance, to be provided at the training course, will also call for permanent benchmarks or control points to be established or reestablished for all Flood Control, Shore Protection, Hurricane Protection, or Navigation Projects following the latest National Geodetic Survey (NGS) guidelines and submitted to NGS for review using the NGS Policy on Submitting Data for Inclusion into the National Spatial Reference System (NSRS) or "Blue Booking."
- 4. The overall point of contact for this effort in Headquarters is M.K. Miles, CECW-CE, 202-761-5532, and the technical point of contact in ERDC, is James Garster, ERDC-TEC, 703-428-9026.

Encl

/s/ 04 December 2006 CARL A. STROCK Lieutenant General, USA Commanding

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